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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/001,958	12/05/2001	Yusuke Kobayashi	Q67392	1400

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2100 Pennsylvania Avenue, N.W.  
Washington, DC 20037

EXAMINER
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HSU, RYAN

ART UNIT	PAPER NUMBER
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3714

DATE MAILED: 05/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/001,958

Applicant(s)

KOBAYASHI, YUSUKE

Examiner

Ryan Hsu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 05 December 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-44 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-44 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 December 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 8/30/01
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Objections*

Claim 28 is objected to because of the following informalities: claim limitation states that “wherein nozzles from which air is blown toward” does not seem correct. Examiner believes the applicant intended to use “blown”. Appropriate correction is required.

### *Drawings*

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the nozzles from which air is blown toward the bottom face of the self-propelled members are formed on the traveling field to form an air bearing layer between the bottom face and traveling field to support the self-propelled member and a skirt member is formed on a peripheral portion of the bottom face of the self-propelled member as recited in claims 8, 9, 10, 19, 28, 30, and 42 must be shown or the feature(s) canceled from the claim(s). Furthermore, the drawings contain foreign language and are objected to by the Examiner. No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the

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renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### *Specification*

35 U.S.C. 112, first paragraph, requires the specification to be written in "full, clear, concise, and exact terms." The specification is replete with terms and errors which are not clear, concise and exact. The specification should be revised carefully in order to comply with 35 U.S.C. 112, first paragraph. Examples of some unclear, inexact or verbose terms used in the specification are: the reference to "brown" air does not make sense throughout the specification. Examiner has interpreted these instances as "blown", however the error occurs throughout the specification. Appropriate Correction is required.

### *Double Patenting*

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned

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with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1, 11, 20, and 33 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1 and 11 of U.S. Patent No. 6,840,837 B2.

Although the conflicting claims are not identical, they are not patentably distinct from each other because both sets of claims are directed towards a racing game machine, comprising: a racing track; a traveling field, on which platen dots are provided, extending below the racing track. The current application and US Patent No. 6,840,837 B2 are also contained the limitations directed towards a plurality of self-propelled members comprising of a first and second yoke in order to allow for movement along the platen dots. Although the two sets of independent claims are simply variances from each other such as a "magnet" or a "motor" (*which consists of magnets to generate energy*) and other minor differences that are considered to be art known equivalents.

The limitations disclosed above in US Patent 6,840,837 B2 and the current application are not patentably distinct as they both describe the same racing game that uses a plurality of self-propelled members that move using a specific yoke movement system to move around a traveling field. The claims have simply used an alternative art known equivalents and language structures to detail the same invention. Therefore it would be obvious to one of ordinary skill in the art that these inventions are not patentably distinct but used a modification in words to state the same invention.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 1, 3-4, 7, 9, 11, 13-14, 17, 19-20, 22-23, 26-27, 29, 31, 33, 35-36, 40-41, and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakagawa et al. (US 5,601,490) and further in view of Sutoki (JP 09261944 A).**

Regarding claims 1, 3-4, 7, 11, 13-14, 17, 20, 22-23, 27, 33, and 35-36, Nakagawa teaches a game machine comprising, a racing track with a traveling field extending below the racing track and a plurality of miniature members, which are provided on the racing track to be raced with each other while being associated with its respective self-propelled member (*see Fig. 3 and the related description thereof*). Nakagawa teaches that each self-propelled member is composed of: front wheels and rear wheels provided on a bottom to be used to support the miniature members on the racing track (*see car [7] of Fig. 3 and the related description thereof*). The supporting wheels provided in Nakagawa's game machine are caster wheels being coupled with a magnetic substance, in which the examiner interprets the magnetic unit [18] as a known equivalent; and each miniature member incorporates a motor which is coupled so to be rotably supported on the self-propelled member. Furthermore, Nakagawa teaches a controller, which controls the motor such that a rotated angle of the miniature member is determined in accordance with a propelling direction of the self-propelled member. However, Nakagawa is silent with regard to the disclosure of platen dots, a plurality of self-propelled members provided on a

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traveling field, where each self-propelled member includes a first yoke, which constitutes a first pulse motor or driving motor which together with the platen dots for propelling the self-propelled member in a first direction on the traveling field; and a second yoke, which constitutes a second pulse motor or driving motor together with the platen dots for propelling the self-propelled member in a second direction which is perpendicular to the first direction. Nakagawa is also silent with regard to providing for each of the first yoke and second yoke to be formed with three legs provided with coils, to constitute three-phase linear motors; and a lower end portion of each leg to be split into plural projections where each having an identical width with a width of each of the platen dots.

Sutoki teaches in a related patent the use of platen dots to help with movement along a traveling field. Sutoki teaches a plurality of self-propelled members where each member includes: a first yoke, which constitutes a first pulse motor together with the platen dots for propelling the self-propelled member in a first direction on the traveling field; a second yoke, which constitutes a second pulse motor together with the platen dots for propelling the self-propelled member in a second direction which is perpendicular to the first direction; and a first magnet provided in an upper portion of the self-propelled member (*see Fig. 8 and the related description thereof*). Additionally, Sutoki teaches that this task is accomplished through the use of a first yoke and a second yoke to be formed with three legs provided with coils, to constitute three-phase linear motors; and a lower end portion of each leg to be split into plural projections where each having an identical width with a width of each of the platen dots (*see Fig. 5 and the related description thereof*). By having a linear motor with platen dots in conjunction with the yokes, one of ordinary skill in the art would be able to provide smooth movement in the X and Y

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direction without producing ripples. Therefore it would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to modify Nakagawa to include platen dots, a plurality of self-propelled members provided on the traveling field along with the incorporation of the first and second yokes to the upper portion of the self propelled member as taught in Sutoki in order to provide a smooth movement of an object in the X and Y direction without producing ripples.

Regarding claims 9, 19, 29, and 41, Nakagawa teaches a game machine wherein a skirt member is formed on a peripheral portion of the bottom face of the self-propelled member (*see bottom plate [7] of Fig. 3 and the related description thereof*).

Regarding claims 26 and 40, Nakagawa teaches a game machine wherein each of the guide magnet of the self-propelled member and the magnetic substance of the miniature member is composed of arcuate N-pole magnets and arcuate S-pole magnets which are arranged alternatively and annularly (*see magnets [701, 702] and [182, 183] of Fig. 3 and the related description thereof*).

Regarding claims 31 and 43, Nakagawa teaches a game machine wherein the magnetic substance of the miniature member is divided magnetic poles forming an induced magnet (*see magnets [701, 702] and [182, 183] of Fig. 3 and the related description thereof*).

**Claims 2, 5, 12, 15, 21, 24, 34, 37, and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakagawa et al. and Sutoki as applied to claims above, and further in view of Helm (US 4,066,021 A).**



Nakagawa et al. in view of Sutoki teach the claimed invention as discussed above except for the ball bearings which are provided on the bottom face to assist in propelling the self-propelled members along the traveling field.

Helm, in a related teaching on movement of ball bearings, teaches the incorporation of ball bearings being substituted for wheels on the bottom face of a traveling device to allow the member traveling in a smoother movement. Additionally, Helm teaches that to allow stable and smooth movement a member must incorporate at least three independent ball bearings, in which the examiner interprets to be the wheels (4) being replaced with the ball bearings (*see Fig. 3 and the related description thereof, col. 3: ln 11-17*). Helm teaches that a ball bearing as opposed to a wheel may be substituted and to be used in conjunction with a linear motor would be obvious to one of ordinary skill in the art in order to provide for high-speed and smooth transportation along a traveling field. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Nakagawa/Sutoki to include a ball bearing to the bottom face of a traveling member. To do so would provide a smooth and fast transportation system of the member.

**Claims 6, 16, 25, 32, and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakagawa et al. and Sutoki and Helm as applied to claims above, and further in view of Li (US 4,618,271).**

Nakagawa and Sutoki and in further in view of Helm teach the claimed invention as discussed above except for the ball bearings being supported within an annular retainer formed on the bottom face of the self-propelled member to constitute a thrust bearing.

However, Li in a related ball bearing teaching shows a ball bearing being supported within an annular retainer to constitute a thrust bearing. By having ball bearings supported within an annular retain to form a thrust bearing enables a device to move and rotate easily and not be limited by direction (*see Fig. 4 and the related description thereof*). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Nakagawa, Sutoki, and Helm to include a ball bearings being supported within an annular retained formed on the bottom face of a self-propelled member to constitute a thrust bearing as taught by Li.

Regarding claim 32, the particular conductive layer formed on the traveling field for supplying power used is a matter of design choice, wherein no stated problem is solved, or unexpected result obtained, by using the specific conductive layer formed on the traveling field for supplying power taught by the prior art.

**Claims 8, 10, 19, 28, 30, and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakagawa et al and Sutoki as applied to claims above, and further in view of Altieri (US 3,224,771).**

Regarding claims 8, 10, 19, 28, 30, and 42, Nakagawa et al. in view of Sutoki teach the claimed invention as discussed above except for a game machine wherein nozzles from which air is blown toward a bottom face of the self-propelled member are formed on the traveling field to form an air bearing layer between the bottom face and the traveling field to support the self-propelled member thereon. Additionally, Nakagawa and Sutoki also are silent with regard to a game machine wherein the self-propelled member includes a compressor for blowing compressed air towards the traveling field through nozzles formed on a bottom face thereof, to

form an air bearing layer between the bottom face and the traveling field to support the self-propelled member thereon.

However in a related racing game machine, Altieri teaches a system to control and direct a plurality of miniature self moving members with a system using blown and compressed air. Altieri teaches that by controlling the amount of air blown through the specific compressed air tubes the movement of these miniature members along the x and y-axis may be conveniently and effectively produced (*see Fig. 6 and the related description thereof, col. 5: ln 40-col. 6: ln 24*). Therefore one would be motivated to incorporate this system for moving members as an alternative to magnetic or electric motor movement. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of Altieri on moving members on a layer of air as an alternative embodiment to the racing games taught by Nakagawa.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

#### **Eto (US 5,472,192) – Racing Game Apparatus.**

Any inquiry concerning this communication or earlier communication from the examiner should be direct to Ryan Hsu whose telephone number is (571)-272-7148. The examiner can normally be reached on M-F 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Scott Jones can be reached at (571)-272-4438.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, contact the Electronic Business Center (EBC) at 1-866-217-9197 (toll-free).



RH

April 14, 2006

